Table 1. Changes to Rel B RBR Class - RTM baseline 12-20-96

RBR_id	req_key	req_category	segment	req_type	s_verif_method	s_verif_stat	a_verif_method	a_verif_stat	text	interpretation text	clarification
EOSD0015#B	6313	mission critical	FOS | CSMS	operational	test	un-verified	test	un-verified	ECS shall use and support the Deep Space Network (DSN), the Ground Network (GN), and the Wallops Orbital Tracking Station (WOTS), via the EDOS/EBnet interface, as backup of the SN, to obtain forward and return link data communications.	~~A&B:~~ ONLY THE GSFC AND LARC DAACS WILL INTERFACE WITH EDOS	
EOSD0020#B	7742	mission critical	FOS | SDPS | CSMS	operational	test	un-verified	~~test~~ demo	un-verified	ECS shall use and support the EDOS/EBnet interface to obtain the data capture, data archival, and data distribution services needed to achieve full end-to-end ECS functionality.		
EOSD0030#B	3829	mission essential	SDPS	operational	test	un-verified	test	un-verified	ECS shall, during its lifetime, ingest, archive distribute and provide search and access for EOS TRMM, Landsat 7 (including IGS metadata and browse) and related non-EOS data and products.		
EOSD0040#B	3830	mission fulfillment	SDPS | CSMS	operational	test	un-verified	test	un-verified	ECS shall provide users without prior approved accounts access to the system for descriptive information about ECS and the types of data it contains.	Via Bulletin Board	
EOSD0500#B	8376	mission critical	FOS | SDPS | CSMS	functional	test	un-verified	test	un-verified	ECS shall perform the following major functions: a. EOS Mission Planning and Scheduling b. EOS Mission Operations c. Command and Control d. Communications and Networking e. Data Input f. Data Processing g. Data Storage h. Data Distribution i. Information Management j. End-to-End Fault Management k. System Management	This requirement covers a global perspective of ECS. Therefore, only selected software and hardware requirements are mapped to this RbR. Additional requirements are mapped to RBRs that are more specific.	
EOSD0510#B	3833	mission essential	FOS | SDPS | CSMS	functional	test	un-verified	test	un-verified	ECS shall be capable of being tested during all phases of its development and flight operations.		

EOSD 0540# B	3834	mission fulfillment	SDPS	functional	analysis	un-verified	analysis	un-verified	ECS elements shall be expandable to facilitate updates in instrument data products and algorithms, particularly with respect to storage capacity and processing capability.		
EOSD 0560# B	3836	mission essential	FOS | SDPS | CSMS	procedural	~~test~~ inspection	un-verified	~~test~~ inspection	un-verified	ECS benchmark tests and test data sets shall be defined for system verification and data quality evaluation.	~~Acceptance Test Procedures (411/VE1) will address compliance.~~ As part of acceptance test procedures (411/VE1) we will define a set of bench mark tests and associated test data that will be maintained under configuration control.	
EOSD 0700# B	3838	mission essential	FOS | SDPS | CSMS	~~functional~~ procedural	~~demo~~ inspection	un-verified	~~demo~~ inspection	un-verified	Each ECS element shall provide the following, to be used in the revalidation of its functional performance: a. Benchmark test(s) b. Standard test data sets.	~~Acceptance Test Procedures (411/VE1) will address compliance.~~ As part of acceptance test procedures (411/VE1) we will define a set of bench mark tests and associated test data that will be maintained under configuration control.	
EOSD 0710# B	3839	mission essential	FOS | SDPS | CSMS	~~functional~~ procedural	~~demo~~ inspection	un-verified	~~demo~~ inspection	un-verified	Each ECS element shall provide access to the following items used in the checkout and verification process: a. Stored test data sets b. Stored test plans c. Stored test procedures.		
EOSD 0720# B	3840	mission critical	FOS | SDPS | CSMS	functional	test	un-verified	test	un-verified	Each ECS element shall be able to validate at any time during the life-time of the ECS that the ECS element primary functional performance is consistent with pre-defined operational benchmark tests.		
EOSD 1000# B	3847	mission critical	FOS | SDPS | CSMS	performance	test	un-verified	test	un-verified	ECS elements shall contribute a loop delay of not greater than 2.5 seconds of the total system delay of five (5) seconds for emergency real-time commands, not including the time needed for command execution. The loop delay is measured from the originator to the spacecraft/instrument and back and only applies when		

									a Tracking and Data Relay Satellite System (TDRSS) link is available for contact to the spacecraft.		
EOSD 1030# B	8377	mission ~~critical~~ essential	SDPS	performance | functional	test	unverified	test	unverified	ECS shall have the capacity to accept a daily average of two (2) per cent of the daily data throughput as expedited data for use in mission functions of calibration and anomalies.		For AM-1 and TRMM only
EOSD 1040# B	3849	mission ~~essential~~ fulfillment	SDPS | CSMS	performance	analysis	unverified	analysis	unverified	ECS shall provide sufficient capacity to permit the reprocessing of all EOS science data at twice the incoming data rate at a minimum, concurrently with processing of new data.	~~B~~: TRMM & AM-1	
EOSD 1050# B	3850	mission fulfillment	SDPS	performance	analysis	unverified	analysis	unverified	ECS shall generate and make available to the users Level 1 Standard Products within 24 hours after the availability to ECS of all necessary input data sets.		
EOSD 1060# B	3851	mission fulfillment	SDPS	performance	analysis	unverified	analysis	unverified	ECS shall generate and make available to the users Level 2 Standard Products within 24 hours after the availability to ECS of all necessary Level 1 and other input data sets.		
EOSD 1070# B	3852	mission fulfillment	SDPS	performance	analysis	unverified	analysis	unverified	ECS shall generate and make available to the users Level 3 Standard Products within 24 hours after the availability to ECS of all necessary Level 2 and other input data sets.		
EOSD 1080# B	3853	mission fulfillment	SDPS	performance	analysis	unverified	analysis	unverified	ECS shall generate and make available to the users Level 4 Standard Products within one week after the availability to ECS of all necessary Level 3 and other input data sets.		
EOSD 1085# B	3854	mission critical	SDPS	performance | functional	test	unverified	test	unverified	ECS shall be capable of ingesting and archiving Landsat7 Level OR data produced by LPS over 12 hours, (see Appendix C) within 8 hours from the time of receipt of the data availability notice from LPS.		
EOSD 1480#	3856	mission	FOS |	interface	demo	unverified	demo	unverified	ECS shall receive from the resident EOS Project Scientist		

B		~~critical~~ fulfillment	SDPS | CSMS						the IWGs Long Term Science Plan (LTSP) and updates as required.		
EOSD1490#B	3857	mission essential	SDPS	~~interface~~ procedural	~~demo~~ inspection	un-verified	~~demo~~ inspection	un-verified	ECS elements shall interface with the resident EOS Project Scientist for resolution of conflicts between observations of equal priority.		
EOSD1500#B	3858	mission critical	FOS	interface	test	un-verified	test	un-verified	ECS shall interface with the EOS spacecraft and with the EOS instruments in order to perform mission operations, including planning, scheduling, commanding, and monitoring functions.		
EOSD1505#B	3860	mission critical	FOS | SDPS	interface	test	un-verified	test	un-verified	ECS elements shall receive EOS spacecraft predicted orbit data and post pass ephemeris determination data from the FDF.		
EOSD1510#B	3861	mission critical	FOS | CSMS	interface	test	un-verified	test	un-verified	ECS elements shall provide the FDF with subsets of spacecraft housekeeping data related to the on-board attitude and orbit systems.	~~B: FOR THE ASTER GDS INTERFACE~~	
EOSD1520#B	3862	mission critical	FOS | SDPS	interface	test	un-verified	test	un-verified	ECS elements shall receive TDRSS schedules from the Network Control Center (NCC).		
EOSD1530#B	3863	mission critical	FOS | SDPS	interface	test	un-verified	test	un-verified	ECS elements shall submit TDRSS schedule requests to the NCC.		
EOSD1607#B	3866	mission essential	SDPS | CSMS	interface	test	un-verified	test	un-verified	ECS shall receive data from near term Earth Probe missions to include the following as a minimum: a). TRMM data for archive and distribution b). Landsat 7 data for archive and distribution including IGS metadata and browse.		
EOSD1608#B	3867	mission essential	SDPS | CSMS	interface	test	un-verified	test	un-verified	ECS elements shall receive from EPDSs the following at a minimum: a. Data products b. Ancillary data c. Calibration data d. Correlative data e. Metadata f. Data information g. Documentation		
EOSD	3870	missio	SDP	interface	test	un-	test	un-	The ECS shall provide 2-way		

1695#B		n fulfillment	S | CSMS			verified		verified	interoperability with the V0 system.		
EOSD1703#B	5600	mission essential	SDPS | CSMS	interface	demo	un-verified	demo	un-verified	ECS shall provide maintenance and operations interfaces to the DAACs to support the functions of: a). System Management b). Science Algorithm Integration c). Product Generation d). Data Archive/Distribution e). User Support Services f). System Maintenance	~~B: all DAACs~~	
EOSD1705#B	3872	mission fulfillment	SDPS | CSMS	procedural	analysis	un-verified	analysis	un-verified	ECS shall support interfaces to DAAC Unique components.	B: ASF SAR interface testing, CIESIN interoperability. For compliance see DID207.	
EOSD1710#B	3873	mission fulfillment	SDPS | CSMS	interface	demo	un-verified	~~demo~~ test	un-verified	ECS elements shall exchange with ADCs/ODCs, such as NOAA and other data processing and archiving facilities, information including the following: a. Directories b. Product Orders c. Order Status d. Science Data e. Management Data	B: 2-way interoperability	
EOSD1720#B	6248	mission essential	SDPS | CSMS	interface	demo	un-verified	demo	un-verified	ECS elements shall receive from the ECS user community the following types of data requests at a minimum: a. Data Acquisition Requests for the ASTER Instrument b. Data Distribution Requests c. Reprocessing Requests		
EOSD1730#B	3875	mission fulfillment	SDPS | CSMS	~~interface~~ procedural	~~demo~~ inspection	un-verified	~~demo~~ inspection	un-verified	ECS elements shall receive from the ECS user community Special Products, research results, and new derived data sets produced from EOS data.		
EOSD1740#B	3876	mission essential	SDPS	interface	test	un-verified	test	un-verified	ECS elements shall send the following types of data at a minimum to the ECS user community: a. Metadata b. Browse data c. Science data		
EOSD1750#B	3877	mission essential	SDPS | CSMS	interface	demo	un-verified	demo	un-verified	ECS elements shall receive data including the following types of supporting information from the ECS science community (TLs,	~~B:~~ TRMM, AM-1~~, and all DAACs~~	

									TMs, PIs, and Co-Is): a. Algorithms b. Software fixes c. Instrument calibration data d. Integration support requests e. Metadata for Special Products archiving f. Data transfer requests (inventories, directories, and browse) g. Data Quality/Instrument assessment h. Instrument operations information i. Ancillary data		
EOSD 1760#B	3878	mission essential	SDPS | CSMS	interface	test	un-verified	test	un-verified	The ECS elements shall send the following types of data at a minimum to the ECS science community (TLs, TMs, PIs, and Co-Is): a. Software Problem Reports b. Documentation c. Metadata (copies of inventories) d. Browse data e. Archived data f. Accounting information	~~B: FOR THE ASTER GDS INTERFACE~~	
EOSD 1770#B	8378	mission essential	FOS | SDPS | CSMS	interface	test	un-verified	test	un-verified	ECS elements shall exchange the following types of data at a minimum with the IPs: a. Instrument command loads b. Science data c. Planning and scheduling data d. Directories e. Product Orders f. Status data	Planning and scheduling data includes instrument stored commands. Note: Instrument command load information is included in planning and scheduling data. B: Full implementation for ASTER. NOTE: ASTER GDS/SDPS interfaces at EDC DAAC only.	
EOSD 1990#B	7949	mission essential	FOS | SDPS | CSMS	security	~~analysis~~ inspection	un-verified	~~analysis~~ inspection	un-verified	The ECS system and elements shall employ security measures and techniques for all applicable security disciplines which are identified in the preceding documents. These documents shall provide the basis for the ECS security policy.	The FOS/EOC requirement is met through the use of CSMS services. For release B as determined in the technical security planning policy activity identified in EOSD2100.	
EOSD 2100#B	7121	mission essential	FOS | SDPS | CSMS	procedural | security	inspection	un-verified	inspection	un-verified	The ECS technical security policy planning shall be comprehensive and shall cover at least the following areas: a. Applicability of the C2 Level of Trustedness as defined by the NSA	Compliance demonstrated in DID 214/SE1, 215/SE3 and 514/PA2.	Reference subparagraph a. "Applicability of the C2 Level of Trustedness as defined by the NSA" and subparagraph b. "Applicability of the C2 Object Reuse capability" is not applicable to the ECS project.

									b. Applicability of the C2 Object Reuse capability c. Discretionary control and monitoring of user access d. ECS communications, network access, control, and monitoring e. Computer system "virus" monitoring, detection, and remedy f. Data protection controls g. Account/privilege management and user session tailoring h. Restart/recovery i. Security audit trail generation j. Security analysis and reporting k. Risk analysis		NASA Automated Information Security Handbook, NHB 2410.9 is applied. Also reference subparagraph k, NHB 2410.9, "Risk Analysis" is documented in 215/SE3 and 514/PA2. Additional programmatic security risk items are documented in CDRL 210/SE3.
EOSD 2200#B	7123	mission essential	FOS | SDPS | CSMS	~~operational |~~ procedural | security	inspection	unverified	inspection	unverified	Selection criteria meeting overall ECS security policies and system requirements shall be applied when selecting hardware.	Compliance demonstrated in DID 214/SE1. Security selection parameters documented in 514/PA2.	DID 514 documents the sensitivity/criticality of the ECS hardware.
EOSD 2400#B	3883	mission essential	FOS | SDPS | CSMS	security	test	unverified	test	unverified	ECS shall provide multiple categories of data protection based on the sensitivity levels of ECS data, as defined in NHB 2410.9.		
EOSD 2440#B	3885	mission critical	FOS | SDPS | CSMS	security	test	unverified	test	unverified	Data base integrity including prevention of data loss and corruption shall be maintained.		
EOSD 2480#B	3886	mission essential	FOS | SDPS | CSMS	security	test	unverified	test	unverified	ECS elements shall require unique sessions when security controlled data are being manipulated.		
EOSD 2555#B	3889	mission essential	CSMS	functional | security	test	unverified	test	unverified	ECS shall maintain confidentiality of user product request and accounts.		
EOSD 2620#B	3890	mission essential	SDPS | CSMS	security	test	unverified	test	unverified	ECS elements shall disconnect a user/element after a predetermined number of unsuccessful attempts to access data.		
EOSD 2640#	3891	mission	SDPS |	security	test	unverified	test	un-	ECS elements shall relinquish a connection between the		

B		essential	CSMS					verified	element and a user when the user has not been active for a configurable period of time.		
EOSD 2650# B	3892	mission essential	FOS | SDPS | CSMS	security	test	un-verified	test	un-verified	ECS elements shall report detected security violations to the SMC.		
EOSD 2990# B	7954	mission critical	FOS | SDPS | CSMS	security	demo	un-verified	demo	un-verified	The ECS elements shall support the recovery from a system failure due to a loss in the integrity of the ECS data or a catastrophic violation of the security system.	The FOS/EOC requirement is met through the use of CSMS services. ~~B: All DAACs~~	
EOSD 3000# B	7955	mission critical	FOS | SDPS | CSMS	security	demo	un-verified	demo	un-verified	The ECS shall provide for security safeguards to cover unscheduled system shutdown (aborts) and subsequent restarts, as well as for scheduled system shutdown and operational startup.	The FOS/EOC requirement is met through the use of CSMS services. For each ~~DAAC~~ site as applicable to ~~DAAC~~ site activation	
EOSD 3220# B	3898	mission ~~critical~~ essential	FOS | SDPS | CSMS	security | procedural	inspection	un-verified	inspection	un-verified	All media shall be handled and stored in protected areas with environmental and accounting procedures applied.		
EOSD 3500# B	5591	mission essential	FOS | SDPS | CSMS	procedural | RMA	~~demo~~ inspection	un-verified	~~demo~~ inspection	un-verified	The ECS RMA Program shall adhere to GSFC 420-05-03, Performance Assurance Requirements for the EOSDIS.	Planned in PAIP This analysis presented in CDRLs 515, 516, 517, 518	
EOSD 3510# B	8176	mission fulfillment	FOS | SDPS | CSMS	procedural | RMA	~~test~~ inspection	un-verified	~~test~~ inspection	un-verified	Reliability predictions shall be calculated in accordance with the parts count analysis method, Appendix A, of MIL-HDBK-217F, Reliability Prediction of Electronic Equipment.	Planned in PAIP. This analysis presented in CDRLS 515, 516, 517, 518.	
EOSD 3600# B	5592	mission fulfillment	FOS | SDPS | CSMS	procedural | RMA	~~test~~ inspection	un-verified	~~test~~ inspection	un-verified	Maintainability shall be predicted in accordance with MIL-HDBK-472, Maintainability Prediction, Procedure IV.	By analysis presented in CDRL 518	
EOSD 3610# B	5593	mission fulfillment	FOS | SDPS | CSM	procedural | RMA	inspection	un-verified	inspection	un-verified	The Maintainability Status Report shall be based on MIL-STD-470A, Maintainability Program for Systems and Equipment, Task	Compliance described by analysis presented in CDRL 518	

			S						104 and shall include any changes in the MTBM predictions.		
EOSD 3615#B	5594	mission fulfillment	FOS | SDPS | CSMS	procedural | RMA	inspection	un-verified	inspection	un-verified	The Maintainability Status Report shall also include data on items specified for maintainability reporting in GSFC 420-05-03.	Compliance described by analysis presented in CDRL 518	
EOSD 3620#B	5396	mission fulfillment	CSMS	RMA	test	un-verified	test	un-verified	ECS shall predict and periodically assess maintainability by measuring the actual MDT and comparing to the required MDT.	M&O responsibility. ~~B: All DAACs/external systems.~~	
EOSD 3625#B	5595	mission fulfillment	FOS | SDPS | CSMS	procedural | RMA	~~test~~ inspection	un-verified	~~test~~ inspection	un-verified	For ECS functions with a backup capability, ECS shall use switchover time to the backup capability in measuring maintainability, rather than down time, when the component goes down.	Compliance described by analysis presented in CDRL 511	
EOSD 3630#B	3908	mission essential	FOS | SDPS | CSMS	RMA	~~analysis~~ inspection	un-verified	~~analysis~~ inspection	un-verified	The maximum down time shall not exceed twice the required MDT in 99 percent of failure occurrences.	~~B: All DAACs/External Systems~~	An inspection of the statistical RMA data will be used in the requirement verification.
EOSD 3700#B	3909	mission essential	FOS | SDPS | CSMS	RMA	analysis	un-verified	analysis	un-verified	ECS functions shall have an operational availability of 0.96 at a minimum (.998 design goal) and an MDT of four (4) hours or less (1.5 hour design goal), unless otherwise specified. ~~The above requirement covers equipment including: a. "Non-critical" equipment configured with the critical equipment supporting the functional capabilities in the requirements. b. Equipment providing other functionality not explicitly stated in the RMA requirements that follow.~~	~~B: EOC, SMC, and all DAACs.~~ Does not apply to data processing function. Product generation is applicable to EOSD4010 and EOSD4020.	This requirement covers equipment including: a. "Non-critical" equipment configured with the critical equipment supporting the functional capabilities in the requirements. b. Equipment providing other functionality not explicitly stated in the RMA requirements.
EOSD 3710#B	3910	mission critical	FOS | CSMS	RMA	test	un-verified	test	un-verified	The ECS shall have no single point of failure for functions associated with real-time operations of the spacecraft and instruments.		
EOSD 3800#B	3911	mission critical	FOS | CSMS	RMA	analysis	un-verified	analysis	un-verified	The FOS shall have an operational availability of 0.9998 at a minimum (.99997 design goal) and an MDT of		

									one (1) minute or less (0.5 minute design goal) for critical real-time functions that support: a. Launch b. Early orbit checkout c. Disposal d. Orbit adjustment e. Anomaly investigation f. Recovery from safe mode g. Routine real-time commanding and associated monitoring for spacecraft and instrument health and safety		
EOSD 3810#B	3912	mission essential	FOS | CSMS	RMA	analysis	un-verified	analysis	un-verified	The FOS shall have an operational availability of 0.99925 at a minimum (.99997 design goal) and an MDT of five (5) minutes or less (0.5 minute design goal) for non-critical real-time functions.		
EOSD 3820#B	3913	mission critical	FOS	RMA	analysis	un-verified	analysis	un-verified	The FOS shall have an operational availability of 0.992 at a minimum (.99997 design goal) and an MDT of one (1) hour or less (0.5 minute design goal) for functions associated with Targets Of Opportunity (TOOs).		
EOSD 3900#B	3914	mission critical	SDPS	RMA	analysis	un-verified	analysis	un-verified	The SDPS function of receiving science data shall have an operational availability of 0.999 at a minimum (.99995 design goal) and an MDT of two (2) hours or less (8 minutes design goal).	B: L0 data	
EOSD 3910#B	3915	mission critical	SDPS	RMA	test	un-verified	test	un-verified	The switchover time from the primary science data receipt capability to a backup capability shall be 15 minutes or less (10 minutes design goal).	~~B: All~~ AM-1	
EOSD 3920#B	3916	mission essential	SDPS	RMA	analysis	un-verified	analysis	un-verified	The SDPS function of archiving and distributing data shall have an operational availability of 0.98 at a minimum (.999999 design goal) and an MDT of two (2) hours or less (9 minutes design goal).	~~B: All DAACs~~	
EOSD 3930#B	3917	mission essenti	SDPS	RMA	analysis	un-verified	analysis	un-verified	The user interfaces to Information Management System (IMS) services at	~~B: All DAACs~~	

		al							individual Distributed Active Archive Center (DAAC) sites shall have an operational availability of 0.993 at a minimum (.9997 design goal) and an MDT of two (2) hours or less (1.6 hour design goal).		
EOSD 3940# B	3918	mission essential	SDPS	RMA	analysis	un-verified	analysis	un-verified	The SDPS function of Information Searches on the ECS Directory shall have an operational availability of 0.993 at a minimum (.9997 design goal) and an MDT of two (2) hours or less (1.4 hour design goal).	~~B: All DAACs~~	
EOSD 3960# B	3920	mission essential	SDPS	RMA	analysis	un-verified	analysis	un-verified	The SDPS function of Metadata Ingest and Update shall have an operational availability of 0.96 at a minimum (.999999 design goal) and an MDT of four (4) hours or less (6 minutes design goal).	~~B: All DAACs~~	
EOSD 3970# B	3921	mission essential	SDPS	RMA	analysis	un-verified	analysis	un-verified	The SDPS function of Information Searches on Local Holdings shall have an operational availability of 0.96 at a minimum (.999999 design goal) and an MDT of four (4) hours or less (6 minutes design goal).	~~B: All DAACs~~	
EOSD 3980# B	3922	mission essential	SDPS	RMA	analysis	un-verified	analysis	un-verified	The SDPS function of Local Data Order Submission shall have an operational availability of 0.96 at a minimum (.999999 design goal) and an MDT of four (4) hours or less (6 minutes design goal).	~~B: All DAACs~~	
EOSD 3990# B	3923	mission essential	SDPS	RMA	analysis	un-verified	analysis	un-verified	The SDPS function of Data Order Submission Across DAACs shall have an operational availability of 0.96 at a minimum (.999999 design goal) and an MDT of four (4) hours or less (6 minutes design goal).	~~B: All DAACs~~	
EOSD 4000# B	3924	mission essential	SDPS	RMA	analysis	un-verified	analysis	un-verified	The SDPS function of IMS Data Base Management and Maintenance Interface shall have an operational availability of 0.96 at a minimum (.999999 design goal)	~~B: All DAACs~~	

									and an MDT of four (4) hours or less (6 minutes design goal).		
EOSD 4010# B	3925	mission essential	SDPS	RMA	analysis	un-verified	analysis	un-verified	Each computer providing product generation shall have an operational availability of 0.95 at a minimum (.9995 design goal).	B: AM-1, TRMM	
EOSD 4020# B	3926	mission essential	SDPS	RMA	inspection	un-verified	inspection	un-verified	At each DAAC site, the product generation functional capabilities shall be spread across multiple product generation computers thereby providing a "failsoft" environment.	TRMM mission: launch plus 12 months, AM-1 mission: launch plus 12 months	
EOSD 4030# B	3927	mission critical	CSMS	RMA	analysis	un-verified	analysis	un-verified	The SMC function of gathering and disseminating system management information shall have an operational availability of .998 at a minimum (.999998 design goal) and an MDT of 20 minutes or less (5 minutes design goal), for critical services.	~~B: All DAACs~~	
EOSD 4036# B	3929	mission critical	CSMS	RMA	analysis	un-verified	analysis	un-verified	The operational availability of individual ESN segments shall be consistent with the specified operational availability of the supported ECS functions.		
EOSD 5000# B	3931	mission fulfillment	SDPS | CSMS	evolvable	analysis	un-verified	analysis	un-verified	ECS shall enable the addition of other data providers, e.g. DAACs, SCFs, ADCs, ODCs, which may: - provide heterogeneous services, i.e. services in support of EOS which may be less than or different than ECS services. - be connected with varying topologies - have variable levels of reliability or operational availability.		The ECS system allows the ECS client to search, browse and order data from NESDIS SSA. The Advertising Service enables the advertisements for the ECS and non-ECS data and services.
EOSD 5010# B	3932	mission essential	SDPS | CSMS	security	test	un-verified	test	un-verified	ECS shall enable extended provider support, i.e. client access of data and services at SCFs and DAACs, as authorized, without distinction to the client.		
EOSD 5020# B	3933	mission fulfillment	SDPS | CSMS	evolvable	analysis	un-verified	analysis	un-verified	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing		

									the same function at different ECS sites that may have different hardware implementations.		
EOSD 5030# B	3934	mission fulfillment	SDPS | CSMS	evolvable	demo	un-verified	demo	un-verified	ECS shall enable the addition of information search and retrieval services, e.g. WAIS, WWW.	ECS will provide WWW interface advertising service.	
EOSD 5040# B	3935	mission fulfillment	SDPS | CSMS	evolvable	analysis	un-verified	analysis	un-verified	ECS shall enable the combination of services from ECS and other data providers in arbitrary, i.e. non-predefined, ways as needed by users to conduct EOS science.	The client subsystem allows a user to select which services he wishes to use, integrate his own services, and use the services in any order the user wishes.	
EOSD 5060# B	3936	mission essential	SDPS | CSMS	evolvable	demo	un-verified	demo	un-verified	ECS shall enable interoperability with equivalent International systems, e.g. European and Japanese systems, to support the following: a). Browse services b). Data retrieval services.		
EOSD 5070# B	3937	mission fulfillment	CSMS	evolvable	analysis	un-verified	analysis	un-verified	ECS shall enable expansion to GByte networks including the ability to provide increased volume of data distribution/access..		
EOSD 5100# B	3938	mission fulfillment	SDPS | CSMS	evolvable	analysis	un-verified	analysis	un-verified	ECS shall enable evolution of ECS to be a federated unit within GCDIS, e.g. GCDIS data centers should not have to negotiate different interfaces with each DAAC.		
EOSD 5200# B	3941	mission fulfillment	SDPS | CSMS	evolvable	analysis	un-verified	analysis	un-verified	ECS shall enable the addition of the following as required for discipline specific user support: unique fields to metadata, unique products for browse, and unique documents for data products guides. These activities shall not require software changes to ECS.		
EOSD 5210# B	3942	mission fulfillment	SDPS | CSMS	evolvable	analysis	un-verified	analysis	un-verified	ECS shall enable development of a local user interface that accesses the core metadata and browse data base servers, bypassing the delivered "core" user interface. This server interface shall be configuration controlled and documented for the programmers' use.		

EOSD 5220#B	3943	mission fulfillment	SDPS | CSMS	evolvable	analysis	un-verified	analysis	un-verified	ECS shall enable addition of new storage devices, if required, to serve discipline-unique and site-unique archiving needs. An applications programming interface that permits the DAACs to integrate this addition to the DAAC shall be developed and configuration controlled.		
EOSD 5230#B	3944	mission fulfillment	SDPS | CSMS	evolvable	analysis	un-verified	analysis	un-verified	ECS shall enable the addition of new data types similar to previous types with minimal changes to the software of the core system.		
EOSD 5240#B	3945	mission fulfillment	SDPS | CSMS	evolvable	analysis	un-verified	analysis	un-verified	ECS shall enable addition of new data types significantly different from previous types with minimal changes to the core architecture.		
EOSD 5250#B	3946	mission fulfillment	SDPS | CSMS	evolvable	analysis	un-verified	analysis	un-verified	ECS shall enable access to configuration controlled applications programming interfaces that permit development of DAAC-unique value added services and products where DAAC-unique value added services may consist of one or more of the following types of developments: a. Visualization utilities and products b. Data sets and inter-data set usability utilities and products c. Data analysis utilities d. Special subsetting capabilities (e.g. dynamic) e. On-line analysis functions f. New search and access techniques g. Data acquisition planning and utilities h. Experimental QA techniques i. Non-digital data utilities and products j. System Management Functions		
EOSD 5300#B	3948	mission fulfillment	SDPS | CSMS	~~security~~ functional	demo	un-verified	demo	un-verified	ECS shall provide APIs and infrastructure for science user extensions and direct search and access to data.		
EOSD 5410#	3949	mission	FOS	evolvable	demo	un-verified	demo	un-verified	ECS shall enable the existence of additional ISTs if desired by		

B		essenti al							the PI/TL to accommodate Co-Investigators and Team Members, who may be at geographically separate locations.		